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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/925,567

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Noboru Yamaguchi

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03/12/2004

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EXAMINER

LEE, RICHARD J

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,567

Applicant(s)

YAMAGUCHI ET AL.

Examiner

Richard Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “scene dividing device”, “second feature amount computing device”, and “scene selector” as claimed in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The Specification teaches all the features and functions of the “first feature amount computing device”, “scene dividing device”, “second feature amount computing device”, and “scene selector” as claimed in claims 1, 5, and 6 are being performed within a single device (i.e., feature amount computing device 220 of Figure 1, and see pages 10, 11, 14, and 23 of the Specification). The drawings do not even show all the devices as claimed in claim 1 (see above paragraph (1)). The Specification therefore lacks written description for the plurality of devices as claimed and how each of the devices are connected to perform the claimed functions.

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4. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For examples:

(1) claim 1, line 13, "senses" should be changed to "scenes" for clarity;

(2) claim 1, line 20, claim 5, line 3, claim 6, line 4, claim 7, lines 1-2, "the feature amount" shows multiple antecedent basis, respectively (see claim 1, lines 5, 12);

(3) claim 7, lines 1-5, the phrase "wherein the feature amount ... and variance of luminance and chrominance" as claimed is vague and indefinite in that it is unclear what is meant by including some of the limitations as claimed. In addition, "the number of motion vectors" shows no clear antecedent basis;

(4) claim 8, line 8, "senses" should be changed to "scenes" for clarity;

(5) claim 8, line 13, claim 12, line 3, claim 13, line 4, "the feature amount" shows multiple antecedent basis, respectively (see claim 8, lines 2, 7);

(6) claim 11, lines 1-2, claim 12, lines 1-2, "the scene content providing step" shows no clear antecedent basis, respectively;

(7) claim 13, lines 1-2, "the scene content providing device" shows no clear antecedent basis;

(8) claim 14, line 12, "senses" should be changed to "scenes" for clarity; and

(9) claim 14, line 23, "the feature amount" shows multiple antecedent basis (see lines 4, 11).

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 7, 8, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Maeda et al (6,546,052).

Maeda et al discloses an image processing apparatus as shown in Figures 1-5, and the same video encoding apparatus and method for encoding a video image, and computer program stored on a computer readable medium as claimed in claims 1, 7, 8, and 14, comprising the same a first feature amount computing device (see texture 1200 of Figure 2 and object extractor 103 of Figure 5, column 7, lines 49-67) configured to compute a statistical feature amount for each frame of the video image by analyzing an input video signal representing the video image; a scene dividing device configured to divide the video image into a plurality of scenes each including a frame or continuous frames in accordance with the statistical feature amount (i.e., as provided by object extractor 103, see column 7, lines 43-67); a second feature amount computing device (i.e., 126 of Figure 5, and see column 8, lines 4-11, lines 43-49) configured to compute an average feature amount for each of the scenes using the feature amount obtained by the first feature amount computing device; a scene selector (i.e., object extractor 103 extracts the image of the person 1052, see column 7, lines 43-47) configured to select a part of the scenes or all of the scenes; an encoding parameter generator (i.e., 128, 131 of Figure 5) configured to generate an encoding parameter including at least an optimum frame rate and quantization step size for

each of the scenes using the feature amount of the scene selected by the scene selector; and an encoder (i.e., 132 of Figure 5) configured to encode the input video signal in accordance with the encoding parameter generated for each of the scenes by the encoding parameter generator; wherein the feature amount includes at least some of the number of motion vectors, distribution, norm size, residual error after motion compensation, and variance of luminance and chrominance (see Figure 5 and columns 8-9).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 3, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al.

Maeda et al discloses substantially the same video encoding apparatus and method for encoding a video image, and computer program stored on a computer readable medium as above, further including wherein a scene content providing device is configure to provide feature of each of the scenes to the user (see Figures 1 and 5, and columns 7-9) as claimed in claims 3 and 10.

Maeda et al does not particularly disclose, though, wherein the scene selector is configured to select the scenes in accordance with operation information obtained by editing performed by an user as claimed in claims 2 and 9. It is noted that the selected scenes of Maeda et al are performed within object extractor 103 in accordance with an operation information obtained by an automatic process (see column 7), and not in accordance with operation

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information obtained by editing performed by an user as claimed. It is however not invention to make something manual from an automatic process, and vice versa (see *In re Venner*, 120 USPQ 192 (CCPA 1958)). Therefore, it would have been obvious to one of ordinary skill in the art, having the Maeda et al reference in front of him/her and the general knowledge of automatic and manual processes, would have had no difficulty in replacing the automatic scene selection of Maeda with a manual process involving the selection of scenes in accordance with operation information obtained by editing performed by an user for the same well known user manipulation purposes as claimed.

9. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al as applied to claims 1-3, 8-10, and 14 in the above paragraphs (6) and (8), and further in view of Sekiguchi et al (6,611,628).

Maeda et al discloses substantially the same video encoding apparatus and method for encoding a video image, and computer program stored on a computer readable medium as above, but does not particularly disclose wherein the scene content providing device provides a key-frame of each scene or a thumb nail thereof to the user. The particular use of key frames of scenes and thumb nails are however old and well recognized in the art, as exemplified by Sekiguchi et al (see Figure 8 and column 7, lines 36+). Therefore, it would have been obvious to one of ordinary skill in the art, having the Maeda et al and Sekiguchi et al references in front of him/her and the general knowledge of key frame and thumb nail processings, would have had no difficulty in providing the key frame of scenes as taught by Sekiguchi et al for the video encoder of Maeda et al for the same well known scene identification of objects of interest purposes as claimed.

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10. Claims 5, 6, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al and Sekiguchi et al as applied to claims 1-4, 8-11, and 14 in the above paragraphs (6), (8), and (9), and further in view of Nagasaka et al (6,400,890).

Maeda et al discloses substantially the same video encoding apparatus and method for encoding a video image, and computer program stored on a computer readable medium as above, but does not wherein the scene content providing device provides a symbol indicating the feature amount or feature obtained for each scene by the second feature amount computing device to the user as claimed in claims 5, 6, 12, and 13. However, such technical features are well known and made obvious by Nagasaka et al (see 802 of Figure 17 and column 14, lines 37-65). Therefore, taking the combined teaching of Maeda et al, Sekiguchi et al, and Nagasaka et al as a whole, it would have been obvious to modify the video encoder of Maeda and Sekiguchi et al to include the symbol indicating the feature obtained for each scene as taught in Nagasaka et al. Doing so would provide the user an added function in the display, and thereby including a quick identification of a scene of interest.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shimada et al discloses a moving picture encoding system.

Imahashi et al discloses an encoded stream generating apparatus.

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12. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:


(703) 872-9314, (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.


RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

3/5/04

